

Thaw and Culture Details

Cell Line Name	UCSD221i-119-1					
WiCell Lot Number	WB53573					
Provider	University of California, San Diego – Dr. Kelly Frazer					
Banked By	WiCell					
Thaw and Culture Recommendations	WiCell recommends thawing 1 vial into 3 wells of a 6 well plate.					
Culture Platform	Feeder Independent					
	Medium: mTeSR™1					
	Matrix: Matrigel®					
Protocol	WiCell Feeder Independent mTeSR™1 Protocol					
Passage Number	p19					
	These cells were cultured for 18 passages prior to freeze and post reprogramming. WiCell adds +1 to the passage number to best represent the overall passage number of the cells at thaw.					
Date Vialed	03-December-2016					
Vial Label	UCSD221i-119-1					
	p19 WB53573					
Biosafety and Use Information	Appropriate biosafety precautions should be followed when working with these cells. The end user is responsible for ensuring that the cells are handled and stored in an appropriate manner. WiCell is not responsible for damages or injuries that may result from the use of these cells. Cells distributed by WiCell are intended for research purposes only and are not intended for use in humans.					

Testing Performed by WiCell

Test Description	Test Provider	Test Method	Test Specification	Result			
	WiCell	SOP-CH-003	Expected karyotype	Fail			
Karyotype by G-banding Karyot							
Post-Thaw Viable Cell Recovery	WiCell	SOP-CH-305	≥ 15 Undifferentiated Colonies, ≤ 30% Differentiation and recoverable attachment after passage	Pass			
Identity by STR	UW Translational Research Initiatives in Pathology Laboratory	PowerPlex 16 HS System by Promega	Defines profile	Pass			
Sterility	Steris	ST/07	Negative	Pass			
Mycoplasma	WiCell	WiCell SOP-QU-004 Negative					



Testing Reported by Provider

The Provider stated that some or all of the additional analyses listed below may have been performed for this cell line. For more information, publication and dbGaP links, where available, are provided on the cell line specific web page on the WiCell website.

- Illumina® HumanCoreExome BeadChip Array
- RNA-Seq
- Flow Cytometry (SSEA-4, Tra 1-81)
- Infinium® Expanded Multi-Ethnic Genotyping Array (MEGAEX)

Approval Date	Quality Assurance Approval			
20-December-2016	JKG JKG Guality Assurance Signed by Gay, Jenna			



Chromosome Analysis Report: 069476

Date Reported: Tuesday, November 28, 2017

Cell Line: UCSD221i-119-1-WB53573 13092

Passage#: 19

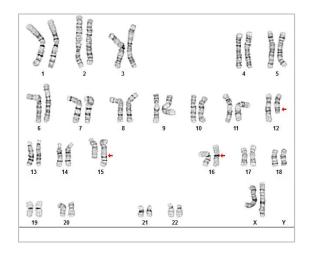
Date of Sample: 11/20/2017 Specimen: Human IPSC

Results: 46,XX,t(12;16;15)(q21.2;q11.2;q26.1)[20]

Cell Line Gender: Female

Reason for Testing: lot release testing

Investigator: , WiCell CDM



Cell: 11

Slide: G01

Slide Type: Karyotype

Total Counted: 20
Total Analyzed: 8

Total Karyogrammed: 4
Band Resolution: 450 - 500

QC Review By:

Interpretation:

Date:

This is an abnormal karyotype. There is an apparently balanced three-way translocation between the long arms of chromosomes 12, 16, and 15. No other clonal abnormalities were found.

Correlation between this finding and other genetic testing performed on this cell line is recommended.

Sent By:____ Sent To:__

Completed by: , CG(ASCP)
Reviewed and Interpreted by: , PhD, FACMG

A signed copy of this report is available upon request.

Limitations: This assay allows for microscopic visualization of numerical and structural chromosome abnormalities. The size of structural abnormality that can be detected is >3-10Mb, dependent upon the G-band resolution obtained from this specimen. For the purposes of this report, band level is defined as the number of G-bands per

haploid genome. It is documented here as "band level", i.e., the range of bands determined from the four karyograms in this assay. Detection of heterogeneity of clonal cell populations in this specimen (i.e., mosaicism) is limited by the number of metaphase cells examined, documented here as "# of cells counted".

This assay was conducted solely for listed investigator/institution. The results may not be relied upon by any other party without the prior written consent of the Director of the WiCell Cytogenetics Laboratory. The results of this assay are for research use only. If the results of this assay are to be used for any other purpose, contact the Director of the WiCell Cytogenetics Laboratory.

Unless otherwise mutually agreed in writing, the services provided to you hereunder by WiCell Research Institute, Inc. ("WiCell") are governed solely by WiCell's Terms and Conditions of Service, found at www.wicell.org/privacyandterms. Any terms you may attach to a purchase order or other document that are inconsistent, add to, or conflict with WiCell's Terms and Conditions of Service are null and void and of no legal force or effect.



Short Tandem Repeat Analysis

HISTOLOGY - IHC - MOLECULAR - IMAGING

Department of Pathology and Laboratory Medicine TRIP Laboratory (Molecular)

http://www.pathology.wisc.edu/research/trip

WiCell® info@wicell.org (888) 204-1782

Sample Report:

13092-STR

Sample Name on Tube: 13092-STR

 $79.0 \text{ ng/}\mu\text{L}, (A260/280=1.95)$

Sample Type: Cells

Cell Count: ~2 million cells

Requestor:

WiCell Research Institute Quality Department Sample Date: N/A Receive Date: 11/27/17 Assay Date: 11/28/17

File Name: STR 171129 wmr

Report Date: 11/29/17

STR Locus	STR Genotype Repeat #	STR Genotype						
FGA	16–18,18.2,19,19.2,20,20.2,21,21.2,22, 22.2, 23, 23.2, 24, 24.2, 25, 25.2, 26–30, 31.2, 43.2, 44.2,45.2, 46.2	Identifying information has						
TPOX	6-13	been redacted to						
D8S1179	7-18	protect donor						
vWA								
Amelogenin								
Penta_D	a_D 2.2, 3.2, 5, 7-17							
CSF1PO								
D16S539	68539 5, 8-15							
D7S820	6-14	Support.						
D13S317	7-15							
D5S818	7-16							
Penta_E	5-24							
D18S51	8-10, 10.2, 11-13, 13.2, 14-27							
D21S11	24,24.2,25,25.2,26-28,28.2,29,29.2, 30, 30.2,31, 31.2,32,32.2,33,33.2, 34,34.2,35,35.2,36-38							
TH01	4-9,9.3,10-11,13.3							
D3S1358	12-20							

<u>Results:</u> Based on the 13092-STR cells submitted by WiCell QA dated and received on 11/27/17, this sample (Label on Tube: 13092-STR) defines the STR profile of the human stem cell line UCSD221i-119-1 comprising 28 allelic polymorphisms across the 15 STR loci analyzed.

<u>Interpretation:</u> No STR polymorphisms other than those corresponding to the human UCSD221i-119-1 stem cell line were detected and the concentration of DNA required to achieve an acceptable STR genotype (signal/noise) was equivalent to that required for the standard procedure (~1 ng/amplification reaction) from human genomic DNA. This result suggests that the 13092-STR sample submitted corresponds to the UCSD221i-119-1 stem cell line and was not contaminated with any other human stem cells or a significant amount of mouse feeder layer cells.

<u>Sensitivity:</u> Sensitivity limits for detection of STR polymorphisms unique to either this or other human stem cell lines is ~2-5%.

X RMB Digitally Signed on 12/01/17 X WMR Digitally Signed on 12/01/17

BA
TRIP Laboratory, Molecular UWHC Molecular Diagnostics Laboratory / UWSMPH TRIP Laboratory

Sterility Report

Biotest Laboratories, Inc.

Making life-saving products possible

CORRECTED REPORT

WiCell Research Institute, Inc. WiCell Quality Assurance

504 South Rosa Road, Room 101

Madison, WI 53719

BIOTEST SAMPLE#

16120579

VALIDATION #

NG

TEST PURPOSE

NG

PRODUCT

UCSD135i-81-1 WB52272 12052 UCSD194i-29-1-WB52612 12053 UCSD077i-1-8 WB52432 12054 UCSD116i-71-1-WB52431 12055 UCSD222i-120-1-WB52614 12056 UCSD070i-1-1-WB52613 12057 UCSD003i-16-2-WB53533 12058 UCSD221i-119-1-WB53573 12059 UCSD192i-13-2-WB53109 12060 UCSD231i-SAD1-3-DB26804 12062

PRODUCT LOT

NA

STERILE LOT

NA

BILOT

NA

STERILIZATION LOT

NA

BI EXPIRATION DATE NA

STERILIZATION DATE

NA

DATE RECEIVED

2016-12-08

STERILIZATION METHOD NA

TEST INITIATED

2016-12-09

SAMPLING BLDG / ROOM NA

TEST COMPLETED

2016-12-23

REFERENCE

Processed according to LAB-003: Sterility Test Procedure

Ten (10) products were each divided between 40 mL TSB and 40 mL FTG. The samples were then cultured at 20-25 C and 30-35 C respectively and were monitored for a

minimum of 14 days.

USP

☐ BI Manufacturers Specifications

☐ Other

RESULTS

Sterile

POSITIVES 0

TESTED

POSITIVE CONTROL

NEGATIVE CONTROL

NA

2 Negative

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests.

The uncertainty of measurement associated with the measurement result reported in this certificate is available from the organization upon request.



Biotest Laboratories, Inc.

Making life-saving products possible

CORRECTED REPORT

BIOTEST SAMPLE # 16120579

COMMENTS Report revised due to missing product name.

REVIEWED BY

DATE

Specific test results may not be indicative of the characteristics of any other samples from the same lot or similar lots. Liability is limited to the costs of the tests.





Mycoplasma Detection Assay Report Testing Performed by WiCell

Testing Performed by WiCell Lot Release Testing November 20, 2017

FORM SOP-QU-004.01 Version G Edition 02 Reported by: KR Reviewed by: JB BD Monolight 180

		Reading A A		A	Read	ling B	В	Ratio		
#	Sample Name	RLU1	RLU2	Ave	RLU1	RLU2	Ave	B/A	Result	Comments/Suggestions
1	UCSD221i-119-1-WB53573 13092	360	373	366.5	99	101	100	0.27	Negative	
2	Positive (+) Control	359	373	366	14265	14523	14394	39.33	Positive	
3	Negative (-) Control	618	647	632.5	84	81	82.5	0.13	Negative	

